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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte EDWARD W. KOHLER JR, and
MASSIMILIANO ANTONIO POLETTO

Appeal 2008-3007
Application 09/931,487
Technology Center 2400

Decided: December 2, 2008

Before HOWARD B. BLANKENSHIP, JAY P. LUCAS, and
THU A. DANG, *Administrative Patent Judges*.

DANG, *Administrative Patent Judge*.

DECISION ON APPEAL

I. STATEMENT OF CASE

Appellants appeal from the Examiner's final rejection of claims 1-33 under 35 U.S.C. § 134(2002). We have jurisdiction under 35 U.S.C. § 6(b)(2002). A Hearing regarding this appeal was conducted on November 5, 2008.

A. INVENTION

According to Appellants, the invention is a system architecture for thwarting denial of service attacks on a victim's data center (Spec., Abstract).

B. ILLUSTRATIVE CLAIM

Claim 1 is exemplary and is reproduced below:

1. A method of protecting a data center against a denial of service attack, the method comprises:

sending queries to data collectors, deployed at different points in a network that carries network traffic to the data center, the data collectors collect statistical information on network packets sent over the network, the queries, to request the statistical information from at least some of the data collectors; and

sending the statistical information from the data collectors in response to the queries; and

processing the statistical information to determine the source of suspicious network traffic sent to the data center.

C. REJECTIONS

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Hill	US 6,088,804	Jul. 11, 2000
Yavatkar	US 6,735,702 B1	May 11, 2004

Claims 1-12, and 15-33 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Yavatkar.

Claims 13, and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Yavatkar and Hill.

We REVERSE and enter a new ground of rejection regarding claims 20-28 as permitted by 37 C.F.R. § 41.50(b).

II. ISSUES

The issues are whether Appellants have shown that the Examiner erred in finding that 1-12, and 15-33 are anticipated by Yavatkar, and in particular, whether Yavatkar discloses “sending queries to data collectors, deployed at different points in a network” (claim 1).

III. FINDINGS OF FACT

The following Findings of Fact (FF) are shown by a preponderance of the evidence.

Yavatkar

1. Yavatkar discloses the use of agents (mobile software modules) to collect data on the state of a network during a network attack (col. 3, ll. 25-28).
2. In Yavatkar, on detecting an attack, a watchdog agent launches one or more bloodhound agents to trace the attack traffic, wherein various

- types of bloodhound agents are launched based on the type of attack detected (col. 4, ll. 2-7).
3. The bloodhound agents are directed to search for attack traffic according to the type of the attack and the target of the attack (col. 17, ll. 36-37).
 4. After gathering such information, the bloodhound agents report to the watchdog agent, which, in turn, may attempt to halt the attack (col. 4, ll. 18-21).

IV. PRINCIPLES OF LAW

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987).

A claim is indefinite if, when read in light of the specification, it does not reasonably apprise those skilled in the art of the scope of the invention. *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1342 (Fed. Cir. 2003).

The function of claims is (1) to point out what the invention is in such a way as to distinguish it from the prior art; and (2) to define the scope of protection afforded by the patent. *In re Vamco Machine & Tool, Inc.*, 752 F.2d 1564, 1577 n.5 (Fed. Cir. 1985). The legal standard for definiteness is whether a claim reasonably appries those of skill in the art of its scope. *In*

re Warmerdam, 33 F.3d 1354, 1361 (Fed. Cir. 1994). The inquiry is merely to determine whether the claims do, in fact, set out and circumscribe a particular area with a reasonable degree of precision and particularity. *In re Moore*, 439 F.2d 1232, 1235 (Fed. Cir. 1971).

The analysis of a claim rejection based on prior art should not be performed where it is necessary to engage in speculation as to the meaning of claim terms and assumptions as to the scope of a claim. *See In re Steele*, 305 F.2d 859, 862 (CCPA 1962).

V. ANALYSIS

35 U.S.C. § 102(e)

Claims 1-12, 15-19, and 29-33

As for claim 1, according to the Examiner, the “Examiner is equating the launching of the various types of bloodhound agents to launching various types of queries to each bloodhound agent upon its creation based on the type of attack detected” (Ans. 11), since “[a]fter launching the bloodhound agents the watchdog agents wait for a response” (Ans. 11). However, Appellants contend that “the watchdog and bloodhound agents are not described in a manner in which the watchdog queries the bloodhound agents” (Br. 11). Accordingly, the issue we address on appeal is whether Appellants have shown that the Examiner erred in finding that Yavatkar discloses sending queries to data collectors, deployed at different points in a network (claim 1).

After reviewing the record on appeal, we agree with Appellants. While Yavatkar discloses providing the bloodhound agents with directions (commands) to collect data throughout the network (FF 1-4), we find that Yavatkar does not disclose sending queries to data collectors deployed at different points in a network. That is, although the bloodhound agents of Yavatkar are data collectors (FF 1) to be deployed throughout the network (FF 2), and the bloodhound agents provide responses (reports) to the commands from by the watchdog agents (FF 3-4), the watchdog agents do not send queries to the bloodhound agents deployed at the different points in the network. Instead, Yavatkar discloses launching the bloodhound agents *with* the directions/commands to the various points in the network and then receiving the reports based on the bloodhounds' findings (FF 1-4).

As such, we will reverse the rejection of representative claim 1 and claims 2-12 and 33 depending therefrom over Yavatkar. As for the rejection of independent claims 15 and 29, because these claims share the feature of sending queries to data collectors deployed at various points in the network, as discussed *supra*, we also reverse the rejection of claims 15 and 29, and claims 16-19 and claims 30-32 depending therefrom.

Claims 20-28

As for claims 20-28, Appellants further contend that "Claim 20 is directed to a system including a plurality of monitors that collect statistical information on the network traffic," and that "Yavatkar does not describe such an arrangement" (Br. 20). We reverse the outstanding rejection of

claims 20-28 under 35 U.S.C. § 103(a), *pro forma*, because at least independent claim 20 is indefinite under 35 U.S.C. § 112, second paragraph. That is, claims 20-28 on appeal must be reasonably understood without resorting to speculation, and thus, rejections of the claims over prior art should not be based on speculation and assumptions as to the scope of the claims. *See In re Steele*, 305 F.2d at 862 (CCPA 1962). Presently, speculation and conjecture must be utilized by us and by the artisan inasmuch as the claims on appeal do not adequately reflect what the disclosed invention is.

35 U.S.C. §112, Second Paragraph
New Ground of Rejection

We find that independent claim 20 on appeal as a whole is so abstract in its recitation as to be indefinite. That is, we cannot determine the metes and bounds of the claims since we can not ascertain the scope of the claims.

In particular, the claim 20 lacks proper antecedent basis for “the plurality of data collectors” that renders the claim indefinite. That is, it is unclear as to whether or how “the plurality of data collectors” is related to the “plurality of monitors dispersed throughout a network.” Additionally, it is unclear as to what is the antecedent basis for “the data collectors” in the limitation “the statistical information from the data collectors.” Similarly, the terms “the victim site,” “the statistical information,” “the source,” “the victim,” and “the gateway” also lack proper antecedent basis.

Further, we cannot determine the metes and bounds of the claims from the indefinite claim language. In particular, the language “a control center” in claim 20 is unclear since we are uncertain as to what are the limitations on the control center from the claims. That is, the control center is “executing a computer program product stored on a computer readable medium, comprising instructions for causing a computer to” perform certain steps, and thus, we are unsure as to whether the control center has to “execute” all of the “instructions” that comprise the “product” or whether the control center has to “execute” any of the instructions when the “product” comprises “instructions for causing a computer” (not the control center) to perform certain steps. Thus the claim language does not specifically define what is the invention being claimed as required by 35 U.S.C. § 112.

Similarly, we are unclear as to what is the subject matter being claimed. In particular, we are unclear as to whether the subject matter of claim 20 is a machine, process, both or neither. That is, claim 20 is directed to a system comprising a control center for executing a computer program product stored on a computer readable medium for causing a computer to perform certain steps.

Because we conclude that there are significant ambiguities with respect to each of independent claim 20 and its dependent claims 21-28, we enter a new ground of rejection under 35 U.S.C. § 112, second paragraph, against claims 20-28 on appeal, pursuant to our authority under 37 C.F.R. § 41.50(b).

35 U.S.C. § 103(a)

Claims 13 and 14

As for claims 13 and 14, because claims 13 and 14 depend from claim 1 and share the feature “sending queries to data collectors, deployed at different points in a network” of claim 1, we also reverse the Examiner’s rejection of claims 13 and 14 under 35 U.S.C. § 103(a). We thus conclude that the Examiner erred in rejecting claims 13 and 14 under 35 U.S.C. § 103(a) for the reasons as set forth above.

VI. CONCLUSIONS OF LAW

(1) Appellants have shown that the Examiner erred in finding that claims 1-12 and 15-33 are anticipated by the teachings of Yavatkar.

(2) Appellants have shown that the Examiner erred in finding that claims 13 and 14 are unpatentable over the teachings of Yavatkar and Hill.

VII. DECISION

We reverse the Examiner’s rejection of claims 1-12 and 15-33 under 35 U.S.C. § 102(e).

Further, we reverse the Examiner’s rejection of claims 13 and 14 under 35 U.S.C. § 103(a).

In a new ground of rejection, we reject claims 20-28 under 35 U.S.C. § 112, second paragraph, as being indefinite.

This decision contains a new ground of rejection pursuant to 37 C.F.R. § 41.50(b) (2008). 37 C.F.R. § 41.50(b) provides “[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review.”

37 C.F.R. § 41.50(b) also provides that the Appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

(1) *Reopen prosecution*. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .

(2) *Request rehearing*. Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

REVERSED -- 37 C.F.R. § 41.50(b)

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FISH & RICHARDSON PC
P.O. BOX 1022
MINNEAPOLIS MN 55440-1022